

## BIBLIOGRAPHICAL NOTICES.

ART. XI.—*Narrative of the United States Exploring Expedition during the years 1838, 1839, 1840, 1841, 1842.* By CHARLES WILKES, U.S.N., Commander of the Expedition, member of the American Philosophical Society, &c. In five volumes and an atlas. Philadelphia: Lea & Blanchard, 1845.

A NOTICE of a voyage of discovery, however interesting its incidents may be to the general reader, might appear out of place in a work devoted to medical science, but the splendid volumes now before us, contain so much that belongs to our domain, that we cannot forbear laying before our readers a few extracts from them. This we shall do without attempting to present even an outline of the voyage or of the difficulties attendant on its progress. All of our readers are aware that by an act of Congress of 18th May, 1836, an expedition was ordered to be fitted out for the purpose of exploring the great southern ocean. Many causes, to which it is not our province to advert, delayed the execution of this undertaking until 1838, at which time Captain Wilkes was appointed to conduct it. We may, however, be permitted to say, that on no one among our many gallant and enterprising officers, could the command have more appropriately been bestowed than on him, when the requisites for its success were indomitable energy and perseverance, nautical skill, and a highly cultivated mind; no one can rise from a perusal of the narrative without being thoroughly satisfied that every thing was done that it was possible to effect, under the circumstances in which he was placed.

The expedition, consisting of the sloops of war, Vincennes and Peacock, the ship Relief, the brig Porpoise and tenders, Sea Gull and Flying Fish, left Hampton Roads on the 18th of August, 1838, for Madeira, where they arrived on the 16th September. Captain Wilkes states, in 1836 the population of this island and that of Port Santo amounted to 115,447, that the births in 1835 were 4102, of which 425, or upwards of one-tenth, were illegitimate; the deaths the same year were 2751, showing an excess of 1351 of births; the marriages were 1065.

After leaving Madeira, the squadron proceeded to Rio Janeiro; among the remarks made during this passage, we find the following interesting notice as regards the deposit of dew:—

"We had now (long. 17 W. lat. 0) heavy deposits of dew, on several fine and cloudless evenings. Indeed, the sun had scarcely set before the ship was quite wet with it. One of the essential requisites supposed necessary by Dr. Wells for a deposit of dew, was entirely wanting in this case, viz.: that 'the temperature of the body on which it was deposited, should be considerably lower than the surrounding air,' the temperature of the air and ship having remained the same for several days at about 78°; all objects, hammock-cloths, spars, sails and rigging, so far as could be ascertained, showed the same, and at the time when the dew was observed to be most copious, we had a fine breeze." This is certainly a singular phenomenon, and is, as the author observes, at variance with previous observations. The only mode in which it can be accounted for, is by an exceedingly rapid radiation from the several objects mentioned, the moment the sun sunk below the horizon. The expedition reached Rio Janeiro on the 23d Nov., and remained there until early in January, employed in repairing the vessels, during which time, the officers and naturalists were fully occupied in various interesting observations and researches; those of Mr. Hale, the philologist, are replete with interest to the anthropologist, as he describes and figures the various negro tribes brought as slaves to Brazil; these differ in cranial conformation and in character far more widely than is generally supposed, some having but little of the distinctive peculiarities of the negro race, whilst others possess them in the highest degree. As it is impossible to give an analysis of this interesting subject,

though we should like to transfer it to our pages, we must refer our readers to the work itself.

Notwithstanding the heat of the climate and the excesses of the seamen, the general health of the squadron did not suffer during their stay at Rio. In nothing, perhaps, has hygiene more improved during the last century, than in the regulations now adopted by all maritime nations in the outfit and attention to the health of seamen. Previous to the time of Captain Cook, the loss of seamen during a long voyage, by disease, was far greater than in the most bloody engagement; any one referring to the voyages of Anson and others, will find that in almost every instance, from one-half to two-thirds of the crews were disabled by scurvy and other diseases, in passages that are now made without the loss of a man, except from casualties; indeed, from the investigations we have made on the subject, we are satisfied that the chances of life among seamen are far higher on board a well-regulated ship on a long voyage, than on shore.

We shall not follow the narrative in its details, however interesting they may be, as our limits forbid so extended a notice, but shall content ourselves with noting such observations as more directly bear on our department.

Captain Wilkes confirms the statement of recent travelers as to the stature of the Patagonians, that, although it is above that of Europeans, it is by no means so much so as asserted by Bougainville, Dampier, and others. It is a remarkable fact, that while these people are well formed and tall, that their immediate neighbours, the inhabitants of Terra del Fuego, should be so diminutive and ill shaped.

No fact connected with the history of man is more striking than the diminution and gradual extinction of the savage races, from the moment they become influenced by civilized nations; this, which is amply exemplified in our own country, seems to hold good in all parts of the world. Thus, from a census taken in Tahiti, it would appear that at the time the expedition visited that island, the population was 9000, and of Eimeo 1000. "When," as is observed by Captain Wilkes, "this is compared with the estimates of the navigators who first visited these islands, an enormous decrease would appear to have taken place."

Allowing with our author that the first estimates were too high, still the decrease is enormous, and cannot be accounted for except in part, by the introduction of new diseases, though there can be no doubt that these materially added to the mortality; whatever the cause, it would seem that the transition from the savage to the civilized or rather semi-civilized state is always accompanied with a great increase of mortality. According to the missionaries at Tahiti, for the last thirty years, the population has remained stationary, the births and deaths being nearly equal, and yet from the great diminution of deaths by infanticide, so universal at the time of the discovery, we ought to expect a visible increase in the population. The other semi-civilized islands in the Pacific evidence a still greater diminution in their population than those under consideration, as will presently be shown. This extinction of savage races has been attempted to be accounted for by the introduction of ardent spirits and syphilis; as regards the former, there can be no doubt of its evil influence, but on the other hand, the inhabitants of many of the islands in the South Sea were in the habitual use of a far more deleterious stimulant than ardent spirits, before their acquaintance with Europeans, and yet their population was on the increase, and, as respects syphilis, although it was widely disseminated among them, still it appears to be far milder in its symptoms than among the white nations.

It does not appear from this narrative that the Tahitians are subject to any peculiar diseases, but this is not the case with the inhabitants of the Samoan group. Captain Wilkes says, "among the diseases which afflict adults, one of the most usual is a spinal affection, which results in caries and produces humpback. This is no doubt owing to the peculiar manner in which the children are carried." "There is an eruptive complaint, called ilamea, which covers many of the children under the age of ten years with sores, and which seems more particularly to attack the face and head." Elephantiasis and ophthalmia are also very prevalent. Fevers are rare, and syphilis is hardly known. The principal curative means employed by the natives in the treatment of disease is a kind of shampooing.

The account of New South Wales and of the Antarctic cruise, though possessing,

more especially the latter, (in which Captain Wilkes had the glory of discovering the long-looked-for Antarctic continent,) extreme interest to general readers, afford nothing for us to notice relative to medical science.

New Zealand, which was next visited by the expedition, would appear to be liable to the same diseases as this country. Thus it is stated,

"Warm days are often succeeded by cold nights, which give rise to pectoral diseases among the natives, many of whom are affected by phthisis or swept off by rapid consumptions. They are also liable to rheumatism and palsy." "Measles, hooping-cough and other epidemics have been introduced from foreign vessels: while we lay at the Bay of Islands, the influenza prevailed on shore and was communicated to our crew."

These facts possess much interest, as they show that certain complaints, which of late have been supposed to be non-contagious, are in reality communicable; for if pertussis and rubeola are not contagious, how is it possible that they could be communicated to a people among whom they were formerly unknown? It is to be lamented that we have not further and more definite accounts of the diseases of savage nations, and of the first appearance of certain epidemics among them; as nothing would more completely settle the mooted point of contagion than such data; hitherto we have had nothing but incidental notices, similar to that quoted above, which leaves the matter still liable to dispute.

At Tongataboo, Capt. Wilkes is of opinion that the climate is not salubrious, in consequence of the rapid transitions of temperature; the diseases are such as might be expected, influenza, catarrh, and phthisis, fevers, &c., though he states, judging from the number of old persons, longevity is by no means uncommon. The venereal disease not as prevalent as at Tahiti.

Among the inhabitants of the Fejee group we are told that parturition is not usually severe, and that it is a prevailing opinion that hard work renders the birth more easy. "Midwifery is a distinct profession, exercised by women in all the towns, and they are said to be very skillful, performing operations which among us are considered as surgical. Abortion is prevalent, and nearly half of those conceived are supposed to be destroyed in this manner, usually by the command of the father, at whose instance the wife takes herbs, which are known to produce this effect. If this do not succeed, the accoucheur is employed to strangle the child and bring it forth dead. A child is rubbed with turmeric as soon as it is born, which they consider strengthening. Girls reach puberty when about fourteen years old, and boys when from seventeen to eighteen."

We have a much fuller account of the diseases prevalent in this group than of any other country visited by the expedition, drawn up from notes of Dr. Fox, the acting surgeon of the Vincennes. He states that rheumatism is very common, especially among the women, and is treated by deep incisions over the affected part. Dysentery never prevails as an epidemic, though sporadic cases occur. The disease of the spine, noticed as so common in the Hawaiian group, was quite rare here. Phthisis pulmonalis and fevers were almost unknown, and ophthalmia is less frequent than in the other groups of islands. Syphilis also was not met with; ulcers are frequent. Influenza appears as an epidemic, and is supposed by the natives to have been introduced by the whites; it is often very fatal: in one of its visitations, one-tenth of the natives are said to have fallen victims to it.

"The most remarkable disease, and one that is believed to be peculiar to this group of islands, is what the natives call the 'dthoke.' It somewhat resembles the yaws of the West Indies, so common among the negroes. In adults who are afflicted with it, it assumes the form of secondary syphilis, and those unacquainted with the history of the disease, would unhesitatingly pronounce it a syphilitic taint. It usually attacks children from two to nine years of age, and according to the natives and white men's experience, none escape. Dr. Fox is of the same opinion; every child of ten years of age that fell under his observation, had had this disease, and in many cases still had it.

"Its first symptoms are fretfulness and inactivity on the part of the child; a swelling of the fingers and pains in the bones follow; these pains, which are rheumatic in character, continue at intervals throughout the disease, and are followed by small red spots in different parts of the body. These become round pustules, varying in size, and result in ulcers. After the eruption has appeared, the pains

about the bones cease to be so general. Sometimes they disappear in fine weather, but return when it is damp and wet. In other cases, they lose the fugitive character, but have a constant fixed pain over the same bone, which is not relieved until the integuments inflame and the carious bones find exit. In the first attack there is much irritation, particularly at night, and more or less fever. This also disappears in most cases as soon as the eruption is out. The mouth, arms, and umbilic ulcerate around the whole circumference." "In adults the pericranium is often affected than in children, the bone is denuded, and frequently pieces of the table of the skull come away. In some cases the eruption does not appear, or after appearing, immediately dries up. These cases are said to be invariably fatal. Cases are by no means rare of the loss of the bones of the palate and nose. This disease varies in duration from nine months to three years. The natives say that this disease has always prevailed among them, and always speak of it as a Feejee disease."

For this disease Dr. Fox states, they have several remedies, the most effectual of which are incisions over the painful part. To the ulcers no applications are made, except in the case of children, in whom they are scraped down with a shell and then rubbed with soot, which causes a rapid cicatrization. The general belief is that the complaint will run its course, but that it is aggravated by certain articles of diet, as pork, or sweet things. Dr. Fox treated several patients for this disease with sarsaparilla, and the application of *ung. citrin* with great success.

There is also another cutaneous disease prevalent among the inhabitants of some of the groups of islands in the Pacific, especially in the Kingsmill, known by the natives under the name of "gune." This at its commencement somewhat resembles ringworm, the spots gradually spread, and others form until the whole body becomes covered with them; when they pass off, the skin is left seamed with lines and circles of a livid hue, which continue during life. "At other times it assumes a more virulent character, in which case, large excrescences like warts form, first on the face, or between the fingers and toes, and then on other parts. The softer portions of the face and body swell to double their natural size; the person becomes unable to walk, or to move his limbs, until death at length overtakes and releases him from his sufferings."

In the Kingsmill group, the practice of infanticide prevails to a great extent, but not to the same degree as among the Feejee islanders. Captain Wilkes says: "A woman has seldom more than two and never more than three living children. After the birth of a third, they consider it necessary to prevent the increase of their families, and resort to that most unnatural means, a systematic abortion. So soon as a woman believes herself *enceinte* for the third or fourth time, she determines that the offspring shall not survive, and calls in the aid of an experienced midwife to destroy it, who effects the purpose by external pressure on the abdomen or back, and, though not unattended with much pain and difficulty to the mother, the operation rarely proves fatal. This practice is looked upon without any sort of horror or shame, being considered as a necessary and proper means to prevent their families from becoming so large as to be a burden to them, and not because the island might become overpeopled, for this latter idea does not seem ever to have occurred to them. The practice of destroying the fetus is universal among the unmarried females, but children are never destroyed after birth."

It would appear that the practice of the profession among the natives of Oregon is by no means a safe one, as our author states that although they have great dread of their medicine men, and even of their remains after death, they frequently make the doctors pay the forfeit of their own lives, if they are not successful in curing their patients; and they also extend this *lex talionis* to whites who may prescribe for Indians, where their prescriptions are of no benefit. If this custom should continue to prevail in Oregon, medicine men will not be as plentiful as on this side the Rocky Mountains, nor will the profession be so overstocked.

Among these tribes also several customs are noticed which would seem to have been almost universal with our Aborigines. Thus, Captain Wilkes observes: "The customs of the Indians, in relation to the treatment of females, are singu-

lar. On the first appearance of the menses, they are furnished with provisions, and sent into the woods, to remain concealed for two days; for they have a superstition, that if a man should be seen or met with during that time, death will be the consequence. At the end of the second day, the woman is permitted to return to the lodge, when she is placed in a hut just large enough for her to lie in at full length, in which she is compelled to remain for twenty days, cut off from all communication with her friends, and is obliged to hide her face at the appearance of a man. After this she is required to perform repeated ablutions before she can resume her place in the family. At every return, the women go into seclusion for two or three days."

It is strange that a superstitious feeling with regard to the menstrual discharge, should have been universal among all nations; we find it noticed in the earliest records of the human race, and always in the same manner; being considered as something noxious, and as exercising a baneful influence on the male sex. The seclusion of the female during the continuance of her monthly discharge was as strictly enjoined by the Mosaic law, as by those of the Egyptians, or other nations of the old continent; and we find that the same regulation existed throughout the savage tribes of America. An investigation of this subject, if productive of no absolute benefit, would be extremely interesting; there must have been some cause for this universal dread of what is now looked upon as a salutary exertion and one essential to the health of the female.

The last extract we shall make is an account of a singular custom among the Nez Percés, as showing the wonderful power of the stomach in resisting the most powerful irritations. To enable themselves to endure fatigue, they prepare themselves as follows: "On the first day three or four willow sticks, eighteen inches in length, are thrust down the throat to induce vomiting; a hole is then prepared of a sufficient depth for a man to sit upright, with his head above the ground. On the second day, other sticks of an eighth of an inch in diameter, and of a length to reach from the mouth to the umbilicus, are passed down, and this process is continued until a burning sensation is produced in the stomach, the number of the sticks being diminished as the throat becomes sore; after this the patient plunges into cold water and remains there until evening, when he takes half a pint of porridge. On the third day he undergoes the same process. During the next four days he alternately takes hot and cold baths, eating very sparingly. This trying operation is commenced at the age of eighteen and is continued annually until about forty. The most remarkable circumstance is, that it would appear that this treatment is efficacious, and that instead of destroying those subjected to it, they are remarkable for their bodily powers." In these days of quackery, it will doubtless be adopted among us, and have as many followers as animal magnetism, hydrosudopathy or other modes of filling the pockets of the charlatan at the expense of his dupes.

We must now take our leave of these agreeable and instructive volumes, which will amply repay the reader, by the variety and importance of the information they contain,—narrated in a clear and unambitious style. The elegance with which they are got up both as regards their typography and their numerous illustrations, far excels any thing that has yet issued from the American press, and reflects infinite credit on the country. We look with much interest for the reports of the scientific corps, trusting that they will soon be laid before the public, in an equally magnificent manner.

ART. XIV.—*An Essay on the Philosophy of Medical Science.* By ELISHA BARTLETT, M.D., Professor of the Theory and Practice of Medicine in the University of Maryland. Philadelphia: Lea & Blanchard, 1844: 8vo., pp. 310.

ESSAYS on the philosophy of Medical Science are as valuable now as they have been in earlier periods of the history of medicine. Notwithstanding many discoveries, and although the means of exploration and the number of medical agents are being constantly increased by them, we have still to lament that a